

IN THE CLAIMS

Please amend the claims as indicated below.

1. (currently amended) A contoured structural member, comprising:
an inner section containing a continuous plurality of contoured layers comprising a composite material or a metal-containing material;
an outer section containing a continuous plurality of contoured layers comprising a composite material or a metal-containing material;
at least one intermediate layer having a ribbed structure connecting the inner section and the outer section; and
an ~~additional~~ structural component.
2. (original) The structural member of claim 1, wherein the structural member has a closed configuration.
3. (currently mended) The structural member of claim 1, wherein the ~~plurality of the layers in the~~ inner section contains both a layer of a composite material and a layer of a metal-containing material.
4. (currently amended) The structural member of claim 1, wherein the ~~plurality of the layers in the~~ outer section contains both a layer of a composite material and a layer of a metal-containing material.
5. (previously amended) The structural member of claim 1, wherein the metal-containing material is a metal alloy.
6. (original) The structural member of claim 1, further comprising at least one initiator.
7. (currently amended) A ~~complex~~, contoured structural member, comprising:
an inner section containing a continuous plurality of contoured layers comprising a composite material or a metal-containing material;

an outer section containing a continuous plurality of contoured layers comprising a composite material or a metal-containing material;

at least one intermediate layer having a ribbed structure connecting the inner section and the outer section; and

a structural component.

8. (currently amended) The structural member of claim 7, wherein ~~the plurality of the layers in~~ the inner section contains both a layer of a composite material and a layer of a metal-containing material.

9. (currently amended) The structural member of claim 7, wherein ~~the plurality of the layers in~~ the inner section contains both a layer of a composite material and a layer of a metal-containing material.

10. (currently amended) The structural member of claim 7, wherein the ~~complex~~ shape of the structural member allows the structural member to be a ~~vehicular module~~ component of a vehicle.

11. (original) The structural member of claim 7, further comprising at least one initiator.

12. (original) The structural member of claim 1, wherein the composite material is a reinforced resin matrix material.

13. (original) The structural member of claim 7, wherein the composite material is a reinforced resin matrix material.

14. (currently amended) The structural member of claim 1 or 7, wherein both the ~~at least one inner layer section and the at least one outer layer section~~ comprise a composite material.

15. (currently amended) The structural member of claim 1 or 7, wherein both the ~~at least one inner layer section and the at least one outer layer section~~ comprise a metal-containing material.

16. (currently amended) The structural member of claim 1 or 7, wherein the ~~at least one inner layer comprises a composite material and the at least one outer layer comprises a metal-containing material~~ ribbed structure comprises a honeycomb core.

17. (currently amended) The structural member of claim 1 or 7, wherein the ~~at least one inner layer comprises a metal containing material and the at least one outer layer comprises a composite material~~ structural component comprises a bracket, fastener, coupler, cap, or the like.

CDW
18. (currently amended) A contoured structural member, comprising:

an inner section containing a continuous plurality of contoured layers comprising a composite material or a metal-containing material;

an outer section containing a continuous plurality of contoured layers comprising a composite material or a metal-containing material;

at least one intermediate layer having a honeycomb structure connecting the inner section and the outer section; and

a structural component.

19. (currently amended) A closed, contoured structural member, comprising:

an inner section containing a continuous plurality of contoured layers comprising a composite material or a metal-containing material;

an outer section containing a continuous plurality of contoured layers comprising a composite material or a metal-containing material;

at least one intermediate layer having a honeycomb structure connecting the inner section and the outer section; and

an additional structural component.

20. (currently amended) A ~~complex~~, contoured structural member, comprising:
an inner section containing a continuous plurality of contoured layers comprising a composite material or a metal-containing material;
an outer section containing a continuous plurality of contoured layers comprising a composite material or a metal-containing material;
at least one intermediate layer having a honeycomb structure being substantially contiguous with the inner section and the outer section; and
~~an additional~~ structural component.

21. (currently amended) A method for making a contoured structural member, comprising:

providing an inner section containing a continuous plurality of contoured layers comprising a composite material or a metal-containing material;

roll wrapping at least one intermediate layer over the inner section, the at least one intermediate layer having a ribbed structure;

providing an outer section over the at least one intermediate layer, the outer section containing a continuous plurality of contoured layers comprising a composite material or a metal-containing material;

connecting the inner and outer sections to the at least one intermediate layer; and
attaching a structural component.

22. (previously amended) The method of claim 21, including providing the inner section by roll wrapping the inner section over a substrate.

23. (previously amended) The method of claim 22, including providing the outer section by roll wrapping the outer section over the at least one intermediate layer.

24. (original) The method of claim 23, further including removing the substrate.

25. (original) The method of claim 24, including partially or completely filling the interior created by removing the substrate.

26. (previously amended) The method of claim 25, further including constraining the outer section when connecting the inner and outer sections to the at least one intermediate layer prior to removing the substrate.

27. (previously amended) The method of claim 26, including constraining the outer section by roll wrapping at least one layer of a shrink-wrap material over the outer section.

28. (original) The method of claim 27, including removing the at least one layer of the shrink-wrap material after the reaction.

*Cl
Contd*
29. (previously amended) The method of claim 27, further including providing at least one pressure distributor over the outer section.

30. (original) The method of claim 29, including providing a plurality of layers of shrink-wrap material with the at least one pressure distributor between two of said layers.

31. (currently amended) A method for making a ~~complex~~, contoured structural member, comprising:

roll wrapping an inner section containing a plurality of contoured layers comprising a composite material or a metal-containing material over a ~~complex~~ substrate;

roll wrapping at least one intermediate layer over the inner section, the at least one intermediate layer having a ribbed structure;

roll wrapping an outer section over the at least one intermediate layer, the outer section containing a plurality of contoured layers comprising a composite material or a metal-containing material;

connecting the inner and outer sections to the at least one intermediate layer;

removing the substrate; and

attaching a structural component.

32. (currently amended) The method of claim 31, wherein the ~~shape of a mandrel provides the complex shape of the structural member~~ ribbed structure comprises a honeycomb core.

33. (previously amended) The method of claim 31, the structural member further comprising at least one initiator.

34. (currently amended) A method for making a contoured structural member, comprising:

roll wrapping an inner section containing a plurality of contoured layers comprising a composite material or a metal-containing material over a substrate;

roll wrapping at least one intermediate layer over the inner section, the at least one intermediate layer having a ribbed structure; and

roll wrapping an outer section over the at least one intermediate layer, the outer section containing a plurality of contoured layers comprising a composite material or a metal-containing material;

constraining the outer section with a shrink-wrap material;

connecting the inner and outer sections to the at least one intermediate layer;

removing the shrink-wrap material and the substrate; and

attaching a structural member component.

35. (currently amended) A method for making a contoured structural member, comprising:

roll wrapping an inner section containing a plurality of contoured layers comprising a composite material or a metal-containing material over a substrate;

roll wrapping at least one intermediate layer having a honeycomb structure to be substantially contiguous with the inner section; and

roll wrapping an outer section to be substantially contiguous with the at least one intermediate layer, the outer section containing a plurality of contoured layers comprising a composite material or a metal-containing material;

constraining the outer section with a shrink-wrap material;

connecting the inner and outer sections to the at least one intermediate layer;

removing the shrink-wrap material and the substrate;

attaching a structural member component.

36. (currently amended) A contoured structural member made by the method comprising:

providing an inner section containing a continuous plurality of contoured layers comprising a composite material or a metal-containing material;

roll wrapping at least one intermediate layer over the inner section, the at least one intermediate layer having a ribbed structure;

providing an outer section over the at least one intermediate layer, the outer section containing a continuous plurality of contoured layers comprising a composite material or a metal-containing material;

connecting the inner and outer sections to the at least one intermediate layer; and

attaching a structural component.

37. (currently amended) A ~~complex~~, contoured structural member made by the method comprising:

roll wrapping an inner section containing a plurality of contoured layers comprising a composite material or a metal-containing material over a ~~complex~~-substrate;

roll wrapping at least one intermediate layer over the inner section, the at least one intermediate layer having a ribbed structure;

roll wrapping an outer section over the at least one intermediate layer, the outer section containing a plurality of contoured layers comprising a composite material or a metal-containing material;

connecting the inner and outer sections to the at least one intermediate layer;

removing the substrate; and
attaching a structural component.

38. (currently amended) A contoured structural member made by the method comprising:
roll wrapping an inner section containing a plurality of contoured layers comprising a composite material or a metal-containing material over a substrate;
roll wrapping at least one intermediate layer over the inner section, the at least one intermediate layer having a ribbed structure; and
roll wrapping an outer section over the at least one intermediate layer, the outer section containing a plurality of contoured layers comprising a composite material or a metal-containing material;
constraining the outer section with a shrink-wrap material;
connecting the inner and outer sections to the at least one intermediate layer;
removing the shrink-wrap material and the substrate; and
attaching a structural member component.

*Cl
Cont*

39. (currently amended) A contoured structural member made by the method comprising:
roll wrapping an inner section containing a plurality of contoured layers comprising a composite material or a metal-containing material over a substrate;
roll wrapping at least one intermediate layer over the inner section, the at least one intermediate layer having a ribbed structure; and
roll wrapping an outer section over the at least one intermediate layer, the outer section containing a plurality of contoured layers comprising a composite material or a metal-containing material;
constraining the outer section with a shrink-wrap material;
connecting the inner and outer sections to the at least one intermediate layer;
removing the shrink-wrap material and the substrate; and
attaching a structural member component.
